DOCUMENT RESUME

ED 117 735 CS 202 487

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TITLE Immediate Versus Delayed Reward in Newspaper Reading.
PUB DATE 69
NOTE 11p.
JOURNAL CIT Acta Sociologica; v12 n4 1969 (Reprint)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage
DESCRIPTORS Behavioral Science Research; Higher Education; Journalism; Media Research; News Media; *Newspapers; *News Reporting; *Positive Reinforcement; *Reading Habits
IDENTIFIERS Himmelstrand (Ulf)

ABSTRACT

The objective of the present study was to explore whether the concepts of immediate and delayed reward have any relevance to the content of the newspaper. In his theory of instrumental and expressive activities, Himmelstrand suggests that instrumental activities tend to have a cumulative structure while expressive activities will have a differential structure. The results presented here support Himmelstrand's hypothesis, but further studies into the motivational basis of the use of mass media are needed before we can be sure about the instrumental nature of the reading of delayed reward news. (RB)

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ED 117735

Reprint from Acta Sociologica 12 (1969) No. 4

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Immediate Versus Delayed Reward in Newspaper Reading

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Schramm's Theory of Newsreading: Basic Concepts

The concepts of immediate versus delayed reward in the theory of newsreading was originally introduced by Wilbur Schramm in 1949,[1] and has been since then mostly used by Schramm and his colleagues.[2] Schramm's basic assumption is that newsreading must be in one way or another *rewarding*. In line with Freud's concepts of the pleasure principle and reality principle[3] Schramm argues that certain news items offer the reward *immediately* (pleasure principle, the reading offers immediate pleasure) while others offer the reward *delayedly* (reality principle, the reward is gained sometimes later). The nature of the news offering immediate vs. delayed reward is described by Schramm as follows:

> In the general, the kinds of news which may be expected to furnish immediate reward are news of crime and corruption, accidents and disasters, sports and recreation, social events and human interest. Delayed reward may be expected from news of public economic matters, social problems, science, education and health.
>
> When a reader selects delayed reward news, he jerks himself into the world of surrounding reality to which he can adapt himself only by hard work. When he selects news of other kinds, he retreats usually from the world of threatening reality toward the dream world.
>
> The immediate reward may be either a reduction of tension or discomfort (e.g. curiosity, worry) or an increase of satisfaction (e.g. from vicarious enjoyment of the achievements of a winning team).
>
> The delayed reward choice, on the other hand, is made not because it is pleasant, but because it is realistic. It is not pleasant to be afraid or to anticipate danger; but it is necessary if one is to avert harm and avoid danger.[4]

Later Schramm has postulated two types of receivers, the reality-oriented and the fantasy-oriented, with content or media choices consistent with their orientation type.[5] The present study, however, will focus on the concepts of immediate vs. delayed reward.

In Freud's theory the pleasure principle and the reality principle are not controversial. Freud's conception of the reality principle as a safeguard of the pleasure principle is important from the point of view of Schramm's theory. The delayed reward content in Schramm's theory actually means a safeguard for individuals, because it is assumed to diminish uncertainty and to prepare people for threatening dangers or for other (not necessarily dangerous) events. From this point of view the delayed reward content seems to share a common basis with the concept of surveillance function proposed by some theorists[6] as one of the functions of mass media in society.

It is important to note that a news item classified by Schramm as delayed reward content may or may not have rewarding value. The future decides whether or not you will have

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any profit from it. It could be tempting to consider the reading of "hard" delayed reward news as more instrumental than that of "light" immediate reward news. But could this be justifiable? For example, it has been suggested that people "feel lost and anxious without a newspaper because, otherwise, they would not know what is going on in the world and, fearing the worst, they are reassured to read each day that everything is well"[7]. Thus, from the reading of delayed reward news one can gain reward immediately, if one is motivated by such needs for security. Kimball noted in his study, of what missing the newspaper means that the need to be informed seems largely to be an end in itself.[8] People do not always use the informative (delayed reward) content rationally, i.e. as a means for constructing a relevant cognitive map for the orientation in their action. Rather, they need only to feel that everything will be all right. In that case the mass media occupy roles not unlike expressive leadership.[9]

So far we do not know the true motivations of individuals reading delayed reward (or immediate reward) news, we do not know the nature of these news for these people. At least we move on a treacherous ice. Stephenson for example in his criticism of Schramm's theory has regarded the concept of delayed reward as very questionable.[10] He argues that if people are not self-involved in the news items then there is no difference between the various news: all are immediately gratifying because the reading itself is the important thing. Schramm also admits that delayed reward news can be to certain people immediately rewarding and contrariwise.[11]

There is very little direct empirical evidence supporting Schramm's theory because of the scarcity of motivational (and especially longitudinal) studies in the field of mass communications. Schramm himself explains many of his results on the basis of his theory, but as so many times in the behavioral sciences the results can be explained otherwise, too. The theory, however, merits empirical verification although here we can test it only indirectly, reaching no ultimate conclusions.

The Aims of This Study

The conceptual difficulties inherent in Schramm's theory were noted above. Thus the first objective of the present study was to explore whether or not the concepts of immediate and delayed reward have any relevance to the content of an ordinary newspaper. To what extent do these concepts constitute the same frame of reference among scientists working on sociological or mass communications studies? If there is no sufficient agreement between different investigators about these concepts, they cannot be very relevant.

Eleven investigators, all working with sociological or mass communications studies at the University of Tampere, were asked to classify 20 different content categories of an ordinary newspaper (see Table 3) on the basis of these concepts. If the classifications of the different judges are sufficiently similar, we can conclude that at least the investigators have the same frame of reference concerning these concepts. But is their conception also empirically relevant? If some content items classified by our expert judges as delayed reward news are in fact read by people striving to gain immediate gratifications in their newspaper use, there is then disagreement between investigators and the empirical reality. The external criteria, by which we here will attack this problem, measure the people's overt reasons for using a daily newspaper. The data, on which this study is based, were collected by mailed questionnaires in connection with a readership study of a local newspaper, *Kymen Sanomat* (KYS), published in Hamina, a town in the south-eastern coast of Finland. (A different set of data, collected by interviews for another readership study also of a local newspaper, *Kainuun Sanomat* (KAS), published in Kajaani in north-eastern Finland, will be used as the control material).

In measuring the people's overt reasons in the use of mass media we used the direct question method used also by McLeod, Ward and Tancill.[12] The respondents had simply to indicate, how adequately the presented reasons described their use of *Kymen Sanomat*. The results were then factorized and three quite clear factors were obtained. On the first of these high loadings were obtained for *vicarious* reasons (such as "to bring some excitement into my life," etc.) and on the second for *informative* reasons (such as "to gain information of the background of various events", etc.). The data were scaled on the basis of these factors (the third factor has no importance here). The first of these scales is called the scale of *vicarious reasons* (VR) and the second the scale of *informative reasons* (IR). The respondents also rated on a seven-point scale, how much they read about the 20 content categories mentioned above. (In the study of *Kainuun Sanomat* 17 of these 20 categories were present.)

The general expectation was that if the conceptions of judges are in agreement with the empirical world, the scale of informative reasons should have higher correlations with reading of content classified as delayed reward news by the judges, and lower with the reading of content classified as immediate reward news. The reverse can be expected to hold regarding the correlations of the scale of vicarious reasons with these categories.

The reading of delayed reward news was cautiously labeled above as a more instrumental activity than the reading of immediate reward news. In his theory of instrumental and expressive activities Himmelstrand suggests that instrumental activities tend to have a cumulative structure while expressive activities will have a differential structure.[13] This means that the dependencies between a set of instrumental activities are positive and high, while those between a set of expressive activities are low. The dependencies between these means and end activities should also be low. Such relationships between these activities have also been empricially observed.[14] Accordingly we can assume that the correlations between those content items classified by the judges as delayed reward news are higher than the correlations between those items classified as immediate reward news.

Ranking of the Content Categories: Procedure and Analysis

The judges were all experts on theories and concepts of sociology and mass communications. Consequently no accurate instructions were given to them. The judges were given no concrete cues as to what would be the criteria of the concepts of immediate vs. delayed reward or of instrumentality vs. expressivity. They had to rely completely on their own conceptions about these concepts. In short, they were simply asked to arrange the content categories (see Table 3) according to these concepts so that at the top is the most delayed and at the bottom the most immediate reward item.

Only one of the 11 judges deviated radically from the others. This may have been due to the loose instructions given. The rank-order correlations between the remaining ten judges were all positive. Of the 45 coefficients 30, or 67 percent, were statistically significant at least on the 5 percent level. The median correlation was .583 ($p<.01$). Despite of the one deviant judge we concluded that the agreement between the judges was sufficiently high to justify the further study.

In order to analyze the judges' conceptions about the concepts of immediate vs. delayed reward more thoroughly, the correlation matrix of the ten judges was reduced to principal factors.[15] Three factors were sufficient to reduce the residuals practically to zero (the fourth factor explained less than 2 percent of the total variance). The matrix was rotated both by orthogonal varimax rotation and by oblique cosine rotation. The latter procedure yielded a clearer solution. The principal axes matrix and the cosine solution matrix are presented in Table 1.

Table 1. *Ranking of the Content Categories: the Principal Axes and the Cosine Solution Matrices. (Base: Rank-Order Correlation.).*

Judges	Principal axes I	II	III	h^2	Cosine solution I	II	III
SR	.883	.365	—.024	.914	.785	.324	—.034
YL	.783	.436	.244	.863	.929	.000	.000
TK	.900	.144	—.085	.838	.586	.443	.133
RV	.791	1.28	.504	.896	.830	—.168	.392
RB	.856	—.085	—.068	.745	.389	.472	.323
KK	.769	.077	—.350	.720	.314	.664	.021
EJ	.813	—.191	.153	.721	.399	.266	.506
PT	.682	—.078	—.611	.843	.000	.918	.000
UA	466	—.655	—.226	.697	—.374	.599	.608
KP	.537	—.684	.432	.942	.000	.000	.971
Eigen values	5.785	1.313	1.082	8.180	factor correlations		
					I	II	III
From total variance	57.9 %	13.1 %	10.8 %	81.8 %	I 1.000	.411	.252
					II	1.000	.174
From common variance	70.7	16.1	13.2	100.0	III		1.000

On the first factor the three highest loading judges (SR, YL and RV) were all professors, and in the second researchers or assistants. On the third factor the highest loading judge was a student who has taken part in some small-scale studies. The factors, as interesting in themselves as they may be, do not however, say anything about the different conceptions of immediate vs. delayed reward concepts.

In order to describe these we chose the core vectors (core vector judges) to represent the factors. Table 2 shows their original rankings. On the basis of these the order of the judges per every content category were composed. For example, in case of the "national news" category KP has ranked it highest and YL higher than PT. So this is the order of the judges on this item. These orders of judges per every item are also presented in Table 2. On the basis of these the different conceptions about the concepts in question can be now described.

According to the orders of judges at least five clear content category clusters can be distinguished, where the categories have not only similar judge-order patterns but also conceptual similarity. The first of these is the *ordinary news material*, including the following items: national and foreign news, and regional and local events. The second of these is the cluster of *expressive news material*, with news of crime and accident, sports news and personal notices (birthday news, obituaries, etc.). The third cluster is *information for specific groups* (organizational, shipping and military affairs, and agricultural matters); the fourth is the *material of practical utility* (advertisements and other announcements); and fifth is the *interpretive and opinion building content* (editorials, articles and commentaries on various events). Other items do not form clusters either because the judge-order patterns are different or because they lack conceptual similarity.

On the basis of these clusters the factors can be described:

Factor I. In this factor the interpretive and opinion building content describes best the concept of delayed reward. The ordinary news material has also quite high emphasis.

Table 2. *Ranking the Content Categories: the Original Rankings of the Core Vector Judges and the Order of Judges per Every Category*

Content categories	Original rankings			Orders of judges		
	I (YL)	II (PT)	III (KP)	I (YL)	II (PT)	III (KP)
National news	6	11	1	2	3	1
Foreign news	5	10	2	2	3	1
Regional events	7	12	3	2	3	1
Local events	8	13	4	2	3	1
News of crime and accidents	16	16	8	2.5	2.5	1
Sports news	19	17	7	3	2	1
Personal notices, birthdays	20	15	5	3	2	1
Organizational affairs	9	6	14	2	1	3
Shipping affairs	12	7	16	2	1	3
Agricultural matters	11	8	15	2	1	3
Military affairs	10	9	17	2	1	3
Advertisements	15	1	9	3	1	2
Other announcements	17	2	10	3	1	2
Articles on the editorial page	2	4	12	1	2	3
Editorials	4	5	11	1	2	3
Interpretive writings	3	3	6	1.5	1.5	3
Congregational affairs	[illegible]	14	18	1.5	1.5	3
Column for adolescents	12	19	19	1	2.5	2.5
Comics	18	20	20	1	2.5	2.5
Culture and the arts	1	18	13	1	3	2

On the other hand, the expressive news material describes best the concept of immediate reward. Content having practical utility belongs in the first factor also to immediately gratifying content. This factor seems to be in closest agreement with Schramm's conception.[16]

Factor II. In this factor the relative emphasis is on content having practical utility either in general or in specific sense. The interpretive and opinion building content has also delayed reward nature (although the relatively low rank of the item "culture and the arts" is an exception). Pure news material, especially expressive news, describes the concept of immediate reward. Apparently the practical usefulness has been the decisive criterion of the concept of delayed reward in this factor.

Factor III. In this factor pure news, both ordinary and expressive, has been preferred as the criterion of the concept of delayed reward to the interpretive and opinion building content. Content having practical utility in general ranks higher than that having utility in some specific sense.

In all of the factors such categories as "congregational affairs", "column for adolescents" and "comics" have relatively low ranks, belonging thus to immediate reward category. "Culture and the arts", which in the Schrammian sense belongs to the delayed reward category, has gained a high rank on the first factor, but low on the others.

There are thus different viewpoints as to what kind of content is focal regarding the concept of delayed reward, although the judges in general are in quite close agreement.

Some see the *interpretive and opinion building content* as most delayedly rewarding, while others stress the importance of *practically useful content*. Further, some seem to stress *pure news*, also expressive news, as the focus of this concept.

The Conceptions of Judges Compared with External Criteria

As noted above, the judges were quite unanimous in their conceptions of the concepts of immediate vs. delayed reward. It is another question whether their conceptions are in agreement with some external criteria. As mentioned above, the external criteria to be used here are two scales measuring informative vs. vicarious reasons in the use of the newspaper. We assumed that the scale measuring informative reasons would have higher correlations to the content classified as delayed reward news by the judges and lower to the immediate reward content, while the correlations of the scale measuring vicarious reasons to the content items should reveal the reverse pattern. Table 3 shows the correlations of these scales to reading about the content items. The content items have been ranked on the basis of these correlations. From these correlations we have constructed a combined measure (IG-VG), on the basis of which the content categories have been ranked, too.

Our previous hypothesis gains support if the rank-order correlation between the correlations of the IR-scale and the combined ranking across all judges is positive. Similarly, the rank-order correlation between the correlations of the VR-scale and the combined ranking across all judges should be negative. We thus computed the rank-order correlations between these variables. We also correlated the ranking across all judges to the ranking made on the basis of the combined IR-VR-measure. Finally we correlated the rankings of the core vector judges separately to the criterion scales. These correlations are presented in Table 4.

Table 3. *Product-Moment Correlations of the Scales with the Content Categories and the Differences Between the IR-VR-Correlations. (Data from the study of Kymen Sanomat: N=296).**

Content categories **	IR	VR	IR-VR
1 Interpretative writings	.258 (7)	.055 (16)	.203 (5)
2 Foreign news	.343 (3)	.143 (5)	.200 (6)
3 National news	.361 (2)	.185 (3)	.179 (8)
4 Editorials	.382 (1)	.154 (4)	.228 (3)
5 Articles on the editorial page	.328 (4)	.086 (13)	.242 (1)
6 Advertisements	.156 (15)	.020 (17)	.136 (12)
7 Regional events	.181 (14)	.000 (19)	.181 (7)
8 Local events	.148 (16)	.057 (15)	.091 (16)
9 Agricultural matters	.132 (17)	.214 (2)	—.082 (20)
10 Organizational affairs	.233 (11)	.125 (7)	.108 (15)
11 Shipping affairs	.111 (19)	—.021 (20)	.132 (13)
12 Other announcements	.284 (6)	.076 (14)	.208 (4)
13 Culture and the arts	.238 (10)	.009 (18)	.229 (2)
14 Military affairs	.253 (9)	.095 (11)	.158 (9)
15 Birthdays, etc.	.232 (12)	.110 (9)	.122 (14)
16 News of crime and accidents	.230 (13)	.254 (1)	—.024 (19)
17 Sports news	.128 (18)	.088 (12)	.040 (17)
18 Congregational affairs	.254 (8)	.104 (10)	.150 (11)
19 Column for adolescents	.290 (5)	.139 (6)	.151 (10)
20 Comics	.110 (20)	.120 (8)	—.010 (18)

* Ranking of the content categories on the basis of the correlations and their differences in parantheses.

** Content categories arranged according to the combined ranking across all judges.

Table 4. *Rank-Order Correlations Between Judges' Rankings and Ranking Made on the Basis of the Correlations of the Criterion Scales to the Content Categories*

Judges' rankings	IR	VR	IR-VR
Combined ranking across all judges	.432	—.092	.490·
I Factor (ranking made by YL)	.525·	—.131	.669··
II Factor (ranking made by PT)	.283	—.247	.419
III Factor (ranking made by KP)	.195	—.040	.161

· $p<.05$
·· $p<.01$

The correlations seem to support our hypothesis. The scale of informative reasons has higher correlations with items classified as delayed reward news by the judges, and lower with items classified as immediate reward news. The correlation (.432) is only slightly below the significance limit (a correlation of .444 is significant at the level of 5 %). On the other hand, the assumed negative relationship between the judges' rankings and the correlations of the VR-scale did not hold true. The scale of vicarious reasons indeed has some high correlations to the content classified as immediate reward news, but also to some content items classified as delayed reward news. The combined measure (IG-VG) yielded the most supporting result regarding our hypothesis.

The correlations between core vector judges and criterion scales indicate that YL (the core vector judge of the first factor) has the highest correlations to the IR-criterion scale and to the combined measure IR-VR. Both correlations are significant at least at the 5 percent level. Thus, compared with other conceptions, Schramm's hypothesis about nature of immediate vs. delayed reward news has gained most empirical support.

Immediate vs. Delayed Reward and Himmelstrand's Hypothesis

As mentioned above, Himmelstrand has suggested that instrumental activities tend to have a cumulative structure, while expressive ones will have a differential structure, or at least a more differential one than the instrumental activities. According to this hypothesis we assumed that the correlations between the content classified as delayed reward news are higher than those between the content classified as immediate reward news.

It can thus be argued, that a set of instrumental activities can be ordered on a continuum ranging from the most to the least instrumental activity, and consequently the correlations of the most instrumental activity to others should be higher than those of the least instrumental. That is, the *mean* correlations of the activities to others should diminish as we move from the most to the least instrumental. Accordingly, we can expect that in line with Himmelstrand's hypothesis, the mean correlations of the content categories to others will diminish as we move from those categories ranked highest by our judges to those ranked lowest.

The product-moment correlations between the content items of both sets of data were computed. The coefficients were then transformed into z-values and the mean z-values per every item were computed. These are shown in Table 5.

The rank-order correlation between the mean z-values in the data of *Kymen Sanomat* and *Kainuun Sanomat* (based on those content items present in both studies) was .382, which is not significant ($p<.20$).

Table 5. *Mean z-Values of the Content Categories to Others in Both Sets of Data.**

Content categories **	KYS (N=296)	KAS*** (N—170)
1 Interpretive writings	.244 (6)	
2 Foreign news	.261 (3)	.178 (8)
3 National news	.305 (1)	.240 (1)
4 Editorials	.247 (5)	
5 Articles on the editorial page	.274 (2)	.096 (15)
6 Advertisements	.208 (11)	.200 (6)
7 Regional events	.248 (4)	.218 (5)
8 Local events	.199 (14)	.123 (13)
9 Agricultural matters	.103 (19)	.223 (3)
10 Organizational affairs	.223 (8)	.222 (4)
11 Shipping affairs	.154 (17)	
12 Other announcements	.226 (7)	.200 (7)
13 Culture and the arts	.177 (16)	.166 (9)
14 Military affairs	.211 (9)	.229 (2)
15 Birthdays, etc.	.207 (12)	.054 (17)
16 News of crime and accident	.199 (13)	.139 (12)
17 Sports news	.144 (18)	.143 (11)
18 Congregational affairs	.186 (15)	.107 (14)
19 Column for adolescents	.209 (10)	.151 (10)
20 Comics	.095 (20)	.059 (16)

* Ranking of content categories on the basis of z-values in parantheses.
** Content categories arranged according to the combined ranking across all judges.
*** Kajaani residents only.

Table 6. *Rank-Order Correlations Between Mean z-Values (in Table 5) and the Correlations of Criterion Scales to the Content Items (Table 3). Rank-Order Correlations of the Judges' Rankings (Combined Ranking Across all Judges and Rankings of Core Vector Judges) to the Mean z-Values.*

Criterion scales	KYS (20 ranks)	KAS (17 ranks)
Scale of informative reasons (IR)	.797 ··	.199
Scale of vicarious reasons (VR)	.081	.091
Combined measure (IR-VR)	.692 ··	.129
Judges rankings		
Combined ranking across all judges	.686 ··	.463
I Factor (ranking made by YL)	.546 ·	.366
II Factor (ranking made by PT)	.487 ·	.502 ·
III Factor (ranking made by KP)	.487 ·	.145

· $p<.05$
·· $p<.01$

First the correspondence of these "cumulation orders" to the orders gained by the criterion scales was checked. The rank-order correlations between these variables are presented in Table 6. In the *Kymen Sanomat* data (KYS) the correlations between the criterion scales

(IR and IR-VR) and mean z-values are positive and highly significant. Thus the content items with higher correlations with the scale of informative reasons show a more cumulative pattern than those items with lower correlations with this scale. This result supports Himmelstrand's hypothesis. The corresponding correlations between the same criterion scales and mean z-values in the *Kainuun Sanomat* data are also in the expected direction, although they are far from significant.

The rank-order correlations between judge rankings and these mean z-values are also presented in Table 6. They also support Himmelstrand's hypothesis. In the *Kymen Sanomat* data the mean z-values correlate highly significantly with the combined ranking across all judges. Also the correlations between the mean z-values and rankings of core vector judges are all significant at the 5 percent level. The direction is similar in the *Kainuun Sanomat* data, too, though there only one of the correlations reaches the level of statistical significance.

This result can be, however, a spurious one. It can simply depend on the possible presence of more delayed than immediate reward items in our content categories. In order to study this we selected the five categories ranked highest by our judges to represent the delayed reward news and the five items ranked lowest to represent the immediate reward news. The mean (intra) z-values of items classified as most delayedly rewarding and of items classified as most immediately rewarding are presented in Table 7.

Table 7. *The Mean (intra) z-Values of Most Delayed Reward News and Most Immediate Reward News Items.*

Mean z-values of	KYS	KAS
the five most delayed reward news items	.472	.265
the five most immediate reward news items	.157	.109

These mean z-values give further support to Himmelstrand's hypothesis. The intracorrelations between delayed reward categories are in both data higher than those between immediate reward items. We could thus conclude that reading about delayed reward news is a more instrumental activity than reading about immediate reward news. Of course, there is still the possibility, e.g. that if an individual reading about delayed reward news is motivated by the needs for security, he may read every single item from his daily newspaper, and thus gains immediate reward from his reading, if everything appears to be all right in the world. In another, yet unpublished, study we have found that the cumulative reading pattern of both delayed and immediate reward items is more obvious among more than less alienated people. Alienated people probably are, in their reading of a newspaper, more motivated by the needs of security than non-alienated people. Perhaps all kinds (or no kind) of information is important to them, while the non-alienated can be more selective.

The results presented here support Himmelstrand's hypothesis, but further studies into the motivational basis of the use of mass media are needed before we can be sure about the instrumental nature of the reading of delayed reward news.

NOTES

1. Wilbur Schramm, "The Nature of News", *Journalism Quarterly*, 26, 1949, pp. 259—269.
2. Wilbur Schramm, Jack Lyle and Edwin B. Parker, "Patterns of Children's Reading of Newspapers", *Journalism Quarterly*, 37, 1960, pp. 35—40; Wilbur Schramm, Jack Lyle and Edvin

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3. Sigmund Freud, "Formulations Regarding the Two Principles in Mental Functioning", in *Collected Papers of Sigmund Freud*, vol. I (London: The Hogarth Press, 1949).
4. Schramm, *op. cit.* pp. 260—261.
5. Schramm, Lyle and Parker, *op. cit.* pp. 57—74.
6. Charles R. Wright, *Mass Communication, a Sociological Perspective* (New York: Random House, 1959), pp. 18—20. Also see Haroid D. Lasswell, "The Structure and Function of Communication in Society", in *Mass Communications*, ed. by Wilbur Schramm (Urbana: University of Illinois Press, 1960), pp. 117—130.
7. William Stephenson, *The Play Theory of Mass Communication* (Chicago: University of Chicago Press, 1967), p. 147.
8. Penn Kimball, "People Without Papers", *Public Opinion Quarterly*, 23, 1959, p. 393.
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10. Stephenson, *op. cit.* p. 51.
11. Schramm, *op. cit.* p. 261. Also see Elihu Katz and David Foulkes, "On the Use of Mass Media as 'Escape'", *Public Opinion Quarterly*, 26, 1962, pp. 377—388.
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13. Ulf Himmelstrand, *Social Pressures, Attitudes and Democratic Processes* (Stockholm: Almqvist & Wiksell, 1960), pp. 263—269.
14. Erik Allardt, Pentti Jartti, Faina Jyrkilä and Yrjö Littunen, "On the Cumulative Nature of Leisure Time Activities", *Acta Sociologica*, 3, 1958, pp. 165—172.
15. Perhaps it is not totally justifiable to apply factor analysis when the correlations are not product-moment coefficients, although in psychological research factor analysis has been applied even to different distance and similarity indexes. See e.g. Kaarle Nordenstreng, "A Comparison between the Semantic Differential and Similarity Analysis in the Measurement of Musical Experience", *Scandinavian Journal of Psychology*, 9, 1968, pp. 89—96, or Warren S. Torgerson, *Theory and Methods of Scaling* (New York: John Wiley & Sons, Inc., 1958), pp. 247—297.
16. Schramm, *op. cit.*; Schramm, Lyle and Parker, "Patterns in Children's Reading of Newspapers", *op. cit.* pp. 37—38.